Confirmation No.: 1781

Applicant: ASK, Kenneth et al.

Atty. Ref.: 07589.0126.PCUS00

**AMENDMENTS TO THE CLAIMS:** 

Please amend the claims as follows:

1. (Previously Presented) An apparatus for reducing backlash in a gear wheel comprising:

at least two interacting gear rims that rotate in relation to one another;

at least one adjusting means located between the gear rims for adjusting the relative angle

of rotation of the gear rims about a common axis of rotation, each of said adjusting means

comprising an hydraulic cylinder connected to a pressure medium source and being arranged to

act between the two gear rims in such a manner that a force arises that tends to displace one gear

rim in relation to the other about the axis of rotation;

each of the hydraulic cylinders extending at an angle to a disk plane and supported on a

part-spherical foot portion in a bowl-shaped seat in one gear rim and a corresponding part-

spherical head portion in a bowl-shaped seat in the other gear rim.

2. (Previously Presented) The apparatus as recited in claim 1, wherein at least two hydraulic

cylinders are located with even spacing in relation to one another in a dividing plane between two

gear rims.

3. (Previously Presented) The apparatus as recited in claim 2, wherein each hydraulic cylinder

comprises two sleeve parts arranged telescopically, one inside the other, and one of which has a

duct connected to the interior of the sleeves for supplying pressure medium.

4. (Previously Presented) The apparatus as recited in claim 3, wherein the sleeve parts together

form an inner chamber that accommodates a compression spring, a guide bushing for the spring

and a spherical body that together form a check valve for hydraulic pressure.

5. (Previously Presented) The apparatus as recited in claim 1, wherein the hydraulic cylinder

obtains working pressure from an oil pump of an internal combustion engine.

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6. (Presently Amended) An apparatus for reducing backlash in a gear wheel, said apparatus

comprising: at least two interconnected gear rims relatively rotatable, one to the other, about a

common axis of rotation;

The apparatus as recited in claim 1, wherein said at least one adjustment means is

constituted by a biasing mechanism acting between two of said gear rims solely utilizing

abutting engagement with said gear rims, the biasing mechanism being operable to reduce

backlash in the gear wheel; and the biasing mechanism wheel and having a longitudinal axis

oriented transversely to the gear rims.

7. (Original) The apparatus as recited in claim 6, wherein the biasing mechanism comprises an

elongate extendable and retractable device.

8. (Original) The apparatus as recited in claim 6, wherein the biasing mechanism comprises an

extendable and retractable hydraulic cylinder.

9. (Presently Amended) An apparatus for reducing backlash in a gear wheel, said apparatus

comprising:

at least two interconnected gear rims relatively rotatable, one to the other, about a

common axis of rotation;

The apparatus as recited in claim 1, wherein said at least one adjustment means is

constituted by a biasing mechanism interconnected between two of said gear rims, the biasing

mechanism being operable to reduce backlash in the gear wheel; and the biasing mechanism

wheel and having a longitudinal axis oriented transversely to the gear rims, wherein the biasing

mechanism is pivotally interconnected to at least one gear rim by a ball-in-socket arrangement.

10. (Original) The apparatus as recited in claim 9, wherein the ball-in-socket arrangement further

comprises a part-spherical foot portion receivably supported in a bowl-shaped seat formed as

recess in one of the gear rims.

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11 (Original) The apparatus as recited in claim 10 wherein the ball-in-socket arrangement further

comprises a part-spherical head receivably supported in a bowl-shaped seat formed as recess in

one of the gear rims.

12 (Original) The apparatus as recited in claim 9, wherein the ball-in-socket arrangement further

comprises a part-spherical head receivably supported in a bowl-shaped seat formed as recess in

one of the gear rims.

13. (Original) The apparatus as recited in claim 8, wherein the extendable and retractable

hydraulic cylinder further comprises two telescopically arranged sleeve parts defining an interior

chamber fluidly connected to a pressure supply source.

14. (Original) The apparatus as recited in claim 13, wherein the pressure supply source is an oil

pump of an internal combustion engine.

15. (Original) The apparatus as recited in claim 13, further comprising:

a compression spring, a guide bushing for the compression spring and a spherical body

are housed in the interior chamber and together form a check valve for controlling hydraulic

pressure.

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16. (Presently Amended) An apparatus for reducing backlash in a gear wheel, said apparatus

comprising:

at least two interconnected gear rims relatively rotatable, one to the other, about a

common axis of rotation;

The apparatus as recited in claim 1, wherein said at least one adjustment means is

constituted by at least two biasing mechanisms, each acting between two of said gear rims solely

utilizing abutting engagement with said gear rims and radially spaced equidistantly about the

common axis of rotation, the biasing mechanisms being operable to reduce backlash in the gear

wheel; and the biasing mechanisms wheel and each having a longitudinal axis oriented

transversely to the gear rims.

17. (Original) The apparatus as recited in claim 16, wherein the at least two biasing mechanisms

further comprise at least four biasing mechanisms radially spaced equidistantly about the

common axis of rotation.

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18. (Presently Amended) An apparatus for reducing backlash in a gear wheel, said apparatus

comprising:

at least two interconnected gear rims relatively rotatable, one to the other, about a

common axis of rotation;

The apparatus as recited in claim 1, wherein said at least one adjustment means is

constituted by at least two biasing mechanisms, each interconnected between two of said gear

rims and radially spaced equidistantly about the common axis of rotation, the biasing

mechanisms being operable to reduce backlash in the gear wheel; and the biasing mechanisms

wheel and each having a longitudinal axis oriented transversely to the gear rims and wherein each

biasing mechanism is pivotally interconnected to at least one gear rim by a ball-in-socket

arrangement.

19. (Original) The apparatus as recited in claim 18, wherein each biasing mechanism further

comprises a part-spherical foot portion receivably supported in a bowl-shaped seat formed as

recess in one of the gear rims.

20. (Original) The apparatus as recited in claim 18 wherein each biasing mechanism further

comprises a part-spherical head receivably supported in a bowl-shaped seat formed as recess in

one of the gear rims.